to work in the areas of their specialization ;

(b) whether any study has been conducted to find out in various technical departments the percentage of officers who got opportunities to work in the areas of specialization during first 5 years, second 5 years, third 5 years and subsequently ;

(c) what are the specific norms in different technical departments with regard to assigning the work in the areas of specialization ; and

(d) which technical department has taken a lead in regard to assigning he work to its other areas of specialization ?

THE MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PUBLIC GRIEVANCES AND PENSIONS (SHRIMATI MARGARET ALVA) : (a) to (d) The Science and Technology Officers are recruited in the scientific departments taking into consideration the specialised needs of the organisation. Such officers are promoted *in situ* in accordance with the Flexible Complementing Scheme. By and large, they continue to work in the areas of their specialisation. It is also to be noted that it is in the nature of Science and Technology disciplines that they undergo rapid changes even over a short period. It is essential for scientists to contribute to multi-disciplinary work. The Government also reviews from time to time the utilisation of the scientists and takes corrective action, wherever necessary. The charter and requirements of different Science and Technology departments are not the same and are addressed to meet the specific requirements in each case. The Science and Technology departments share their experience in regard to these matters from time to time.

Assessment of Science and Technology manpower utilization

571. SHRI SANTOSH BAGRODIA : Will the PRIME MINISTER be pleased to state :

(a) whether any study has been carried out recently for assessing Science and Technology manpower utilization, in basic research, engineering and technology ; if so, the outcome thereof ;

(b) what are the salient recommendations to improve the skilled manpower utilization factor ; and

(c) if not, how soon it is likely to be done and what parameters ?

THE MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PUBLIC GRIEVANCES AND PENSIONS (SHRIMATI MARGARET ALVA) : (a) to (c) A survey of degree holders and technical personnel has been conducted in 1981 alongwith Population Census. The Government have from time to time taken measures to increase utilisation of scientific and technical manpower. Some of these measures are :

(i) Increase in outlay for science and technology sector in successive Five Year Plans ;

(ii) Creation of new scientific departments/organisations ;

(iii) Setting up of some centres of excellence/advanced studies in universities and academic institutions ;

(iv) Creation of core groups of professionals with necessary modern facilities required for pursuing research in new and frontier areas of science ; and

(v) Delegation of enhanced administrative and financial powers to scientific institutions to improve working conditions of scientists.